



Jefferson Lab Alignment Group

Data Transmittal

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Checked:

: P1131

DETAILS:

Work has recently been carried out to tie the surface survey monuments to the main accelerator survey network. The two penetrations at the eastern end of the site were used to define surface monuments nearby. The results given below show the differences between the accepted surface coordinates and the newly defined ones. The Z axis of the accelerator runs to the east, the X axis runs north; with a positive DZ indicating a difference to the east, a positive DX is to the north.

These values should be treated as preliminary pending a full re-survey of the accelerator network, and a stronger tie to the surface using all four penetrations. They do, however, indicate that there is no major disconnect between the two networks. The maximum difference is just over 8mm (0.33 inch). There also appears to be a small difference (0.002 degrees) in the orientation of the networks. This translates to a difference of about 8mm over 240 meters (the approximate distance from the N.E. penetration to the Hall D area.)

Point	DZ(mm)	DX(mm)
EHCP	-2.3	-3.9
HBASE01	1.6	-2.6
HBASE04	2.7	8.1
HSUN305	0.9	-3.3
HSUN325	-1.1	-3.9
HSUN600	-1.6	-2.1
HSUM610	-2.9	-1.9
HSUN625	-3.3	-4.6